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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,304	04/11/2006	Heiko Brunner	B-7228	9543

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EXAMINER	
WILLIS, DOUGLAS M	

ART UNIT	PAPER NUMBER
1624	

MAIL DATE	DELIVERY MODE
12/09/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/575,304	BRUNNER ET AL.	
	Examiner	Art Unit	
	DOUGLAS M. WILLIS	1624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 November 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-39* is/are pending in the application.

4a) Of the above claim(s) *10-30,34,35 and 37-39* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *33 and 36* is/are rejected.

7)☒ Claim(s) *1-9,31 and 32* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

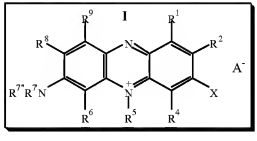
DETAILED ACTION

Status of the Claims / Priority

Claims 1-39 are pending in the current application. According to the *Amendments to the Claims*, filed November 13, 2009, claims 1, 6-10 and 34 were amended and claims 36-39 were added. This application is a 35 U.S.C. § 371 National Stage Filing of International Application No. PCT/EP2004/012851, filed November 9, 2004, which claims priority under 35 U.S.C. § 119(a-d) to DE 10354860.2, filed November 19, 2003.

Status of Restrictions / Election of Species

Applicant's affirmation of the following election, with traverse, in the reply filed on November 13, 2009, is acknowledged: Group I - claims 1-9, 31-33 and 36.



The requirement was made FINAL in the *Non-Final Rejection*, mailed on July 7, 2009.

Currently, Group I - claims 1-9, 31-33 and 36, drawn to substituted halogenated or pseudohalogenated monomeric phenazinium salts of the formula I having a purity of at least 85 mole-%, is constructively elected by original presentation for prosecution on the merits.

Consequently, claims 10-30, 34, 35 and 37-39, drawn to nonelected inventions, with traverse, in the reply filed on November 13, 2009, are hereby withdrawn. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144). See MPEP § 821.01.

Moreover, appropriate correction of the respective claim status identifiers are required in

response to this Office action. See 37 CFR 1.121 and MPEP § 714.

The sections of U.S.C. Title 35 that formed the basis of prior rejections formulated, as well as any references supporting said rejections, that are not included with this Office action, may be found in the *Non-Final Rejection*, mailed on July 7, 2009. Furthermore, any rejections or objections of record not explicitly addressed herein below, are hereby withdrawn, in light of applicant's arguments and/or the *Amendments to the Claims*, filed November 13, 2009.

Thus, a second Office action and prosecution on the merits of claims 1-9, 31-33 and 36 is contained within.

New Claim Objections

Claims 1 and 36 are independently objected to because of the following informalities: *NH2* should be replaced with NH_2, with respect to amino. Appropriate correction is required.

Claims 2-9, 31 and 32 are independently objected to because of the following informalities: the claims are dependent upon an objected base claim. Appropriate correction is required.

New Claim Rejections - 35 U.S.C. § 112, Second Paragraph

The following is a quotation of the second paragraph of 35 U.S.C. § 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 33 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 33 recites the limitation *the phenazinium compounds according to claim 5,*

characterized in that X is chlorine, bromine or thiocyanate. There is insufficient antecedent basis, in claim 5, for this limitation, with respect to the substituted pseudohalogenated monomeric phenazinium salts of the formula I. According to claim 1, *X* is a pseudohalogen, with respect to the substituted pseudohalogenated monomeric phenazinium salts of the formula I.

The examiner suggests removal of *chlorine* and *bromine*, to overcome this rejection.

Claim 36 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase *an acid anion* is a relative phrase which renders the claim indefinite. The phrase *an acid anion* is not defined by the claim, the specification does not provide an adequate standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The specification fails to explicitly limit the phrase *an acid anion*. Consequently, the substituted halogenated monomeric phenazinium salts of the formula I have been rendered indefinite by the use of the phrase *an acid anion*.

The examiner suggests removal of the phrase *an acid anion* and providing discrete *acid anions* (i.e. *chloride, bromide, hydrogen sulfate* or *tetrafluoroborate*) for each occurrence where *acid anions* are desired, to overcome this rejection.

Moreover, a broad limitation together with a narrow limitation that falls within the broad limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), pertaining to where broad language is

followed by *such as* and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 36 recites the broad limitation *halogenated monomeric phenazinium compounds... having the following chemical formula I...*, and the claim also recites *3-chloro-7-N,N-dimethylamino-2-methyl-5-phenyl-phenazinium salt, 3-bromo-7-N,N-dimethylamino-2-methyl-5-phenyl-phenazinium salt* and *3-bromo-7-N,N-diethyl-amino-5-phenyl-phenazinium salt*, which are the narrower statements of the limitation.

New Claim Rejections - 35 U.S.C. § 103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

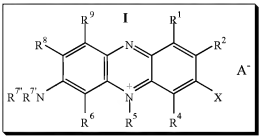
The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. § 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 36 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Motono, et al.

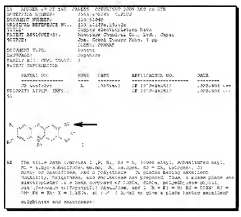
in JP 60056086.

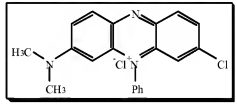
The instant application recites substituted halogenated monomeric phenazinium salts of



the formula I, shown to the left, where A^- = Cl^-; R^1 = -H; R^2 = -H; **X = -Br**; R^4 = -H; R^5 = -Ph; R^6 = -H; $R^{7'}$ = $-CH_3$; $R^{7''}$ = $-CH_3$; R^8 = -H; and R^9 = -H, as useful in copper electroplating of baths.

Motono, et al. (JP 60056086), as provided in the file and cited on the IDS, teaches substituted halogenated monomeric phenazinium salts of the formula I, shown to the right below, where A^- = Cl^-; R^1 = -H; R^2 = -H; **X = -Cl**; R^4 = -H; R^5 = -Ph; R^6 = -H; $R^{7'}$ = $-CH_3$; $R^{7''}$ = $-CH_3$; R^8 = -H; and R^9 = -H, as useful in copper electroplating of baths [p. 2, Table 1, compound 3]. Furthermore, in the genus disclosure, Motono teaches that *X* may alternatively be -Br [STN Abstract, shown left, wherein R^3 = -halogen].





The only difference between the instantly recited substituted halogenated monomeric phenazinium salts of the formula I and Motono's substituted halogenated monomeric phenazinium salts of the formula I is *X* is -Br in the instantly recited substituted halogenated monomeric phenazinium salts of the formula I, whereas *X* is -Cl in Motono's substituted halogenated monomeric phenazinium salts of the formula I.

In the chemical arts, it is widely accepted that *structural similarity between claimed and prior art subject matter, proved by combining references or otherwise, where the prior art gives*

reason or motivation to make the claimed compositions or compounds, creates a prima facie case of obviousness. {See *Takeda Chem. Indus., Ltd. v. Alphapharm Pty., Ltd.*, No. 06-1329, slip op. at 9 (Fed. Cir. June 28, 2007) (quoting *In re Dillon*, 919 F.2d 688, 692 [16 USPQ2d 1897] (Fed. Cir. 1990) (en banc)); and *In re Papesch*, 315 F.2d 381 [137 USPQ 43] (C.C.P.A. 1963)}.

Consequently, since: a) Motono teaches substituted halogenated monomeric phenazinium salts of the formula I, where *X* is -Cl; b) Motono teaches substituted halogenated monomeric phenazinium salts of the formula I, where -Cl and -Br are alternatively usable at *X*; and c) the courts have recognized that *structural similarity between claimed and prior art subject matter, proved by combining references or otherwise, where the prior art gives reason or motivation to make the claimed compositions or compounds, creates a prima facie case of obviousness*, one having ordinary skill in the art, at the time this invention was made, would have been motivated to utilize the teachings of Motono and replace the -Cl at *X* in Motono's substituted halogenated monomeric phenazinium salts of the formula I, with an alternatively usable -Br, with a reasonable expectation of success and similar utility, rendering claim 36 obvious.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made, absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. § 103(c) and potential 35 U.S.C. § 102(e), (f) or (g) prior art under 35 U.S.C. § 103(a).

Allowable Subject Matter

No claims are allowed.

Conclusion

Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DOUGLAS M. WILLIS, whose telephone number is 571-270-5757. The examiner can normally be reached on Monday thru Thursday from 8:00-6:00 EST. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. James O. Wilson, can be reached on 571-272-0661. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DOUGLAS M WILLIS/
Examiner, Art Unit 1624

/James O. Wilson/
Supervisory Patent Examiner, AU 1624